

Automatic control of strip thickness

S/118/62/000/012/001/002
D201/D308

at the 6th, 7th, 8th and 9th cages, which keep the gaps constant during the rolling process. The Simms-Golovin equation makes it possible to find the gap indirectly from measurements of the pressure of the roller clamp screw, and the deformation of the cage. The strip tension is measured by a loop-tension pickup. The position of the clamp screw is measured by the special position pickup DP-5138 (DR-5138), in the form of a rheochord, with a remotely controlled wiper. It is envisaged that tension gauges developed by VNIIMETASH and TsLA and magneto-anisotropic pressure pickups, developed at TsNIICHM, be used for the measurements of metal pressure against the rollers. An X-ray intensity meter MTR-5236 (ITG-5236) measures the strip thickness continuously. The gap control device has several electronic circuits, the most important of which are the electronic measuring amplifier, pressure storage circuit, adder and gap controller amplifier. A model under test proved to be reliable. The economy in metal could be 4.5 million roubles per year. There are 8 figures.

Card 2/2

AUTHOR: Kleshko, O. B. (Moscow)

... of linear automatic systems ...

51
B

L 1211-55

A 1211-55 R A P 5002471

At the transfer function of the device has a specified
U 41 form. A general formula (2.3) for the optimal transfer

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CIA-RDP86-00513R000723020013-3"

TSVETKOV, Vladimir Petrovich, dots.; ~~KLESHOV~~, Boris Aleksandrovich;
POMKIN, Nikolay Yefimovich, kand. tekhn. nauk; ANOROV,
Sergey Nikolayevich, st. nauchn. sotr.; PERFILOV, I.F.,
inzh., red.

[Pressure-water conduits of reinforced concrete pipes;
practices of the "Kalininspetsstroi" Trust and the All-
Union Research Institute for Water Supply, Sewer Systems,
Hydraulic Engineering Structures, and Hydrogeological
Engineering (VODGEO)] Napornyj vodovod iz zheleznodorozh-
nykh trub; opyt tresta "Kalininspetsstroi" i VNI vodo-
snabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzhenii
i inzhenernoi gidrogeologii (VODGEO). Moskva, Stroiizdat,
1964. 26 p. (MIRA 17:12)

1. Moscow, Nauchno-issledovatel'skiy institut organizatsii,
mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
2. Zaveduyushchiy kafedroy Kalininskogo torfyanogo instituta
(for Tsvetkov). 3. Glavnyy inzhener tresta "Kalininspetsstroy"
(for Kleshov). 4. Vsesoyuznyy nauchno-issledovatel'skiy in-
stitut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh so-
oruzheniy i inzhenernoy gidrogeologii (for Anorov).

L 20395-66 EMP(e)/EMP(e)/T/EMP(e) IJP(e) JD

ACC NR: AP302245

SOURCE CODE: GR/0030/65/011/001/0127/0137

AUTHOR: Lukas, P.; Klesnil, H.

ORG: Institute of Metallurgy, Czechoslovak Academy of Sciences, Brno

TITLE: ^{21.} Hysteresis loops in the microstrain region

SOURCE: Physica status solidi, v. 11, no. 1, 1965, 127-137

TOPIC TAGS: metal analysis, hysteresis loop, mechanical stress, tensile stress

ABSTRACT: It was shown that the condition for a loading-unloading test to form a closed hysteresis loop is the existence of a non-zero effective stress acting against the applied stress at the beginning of the loading curve. After prior tensile deformation tensile closed hysteresis loops can be observed. On annealed or fatigued specimens, where the average effective stress is zero, tensile closed loops can be observed at the sensitivity used only when a series of loading-

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L 20395-66

ACC NR: AP5022459

unloading tests at increasing stress amplitude is performed. In the cases of annealed and fatigued specimens tensile-compression closed hysteresis loops can be observed. Both in the case of tensile loops and in the case of tensile-compression loops the maximum stress amplitude at which the last closed loop can be observed depends upon the increment of stress amplitude throughout the whole series. The slope of plot W vs. v_0 at $v_0 = 0$ is connected with friction stress

$\left(\frac{\partial W}{\partial v_0} \right)_{v_0=0} = 2\tau_f$; this slope has no clear meaning for $v_0 \neq 0$.

Orig. art. has: 10 figures and 12 formulas. [Based on author's abstract]

SUB CODE: 11/ SUBM DATE: 08 Jun 65/ OTH REF: 013/

Card 2/2

BK

L 35378-66

ACC NR: AP6026850

SOURCE CODE: CZ/0060/66/000/002/0078/0080

AUTHOR: Klesnil, Svatopluk (Lieutenant colonel; Doctor of medicine); Hubka, Stanislav
Gubka, S. (Lieutenant colonel; Doctor); Brzokounil, Oldrich (Major; Doctor of medicine)

ORG: Military Hospital, Olomouc (Vojenska nemocnice)

TITLE: Medical evacuation²² of soldiers suffering from spinal disorders under field conditions
This paper was presented at the Armed Forces Conference held at the Military Hospital in Olomouc on 16 October 1966

SOURCE: Vojenske zdravotnicke listy, no. 2, 1966, 78-80

TOPIC TAGS: army medicine, bone disease, therapeutics

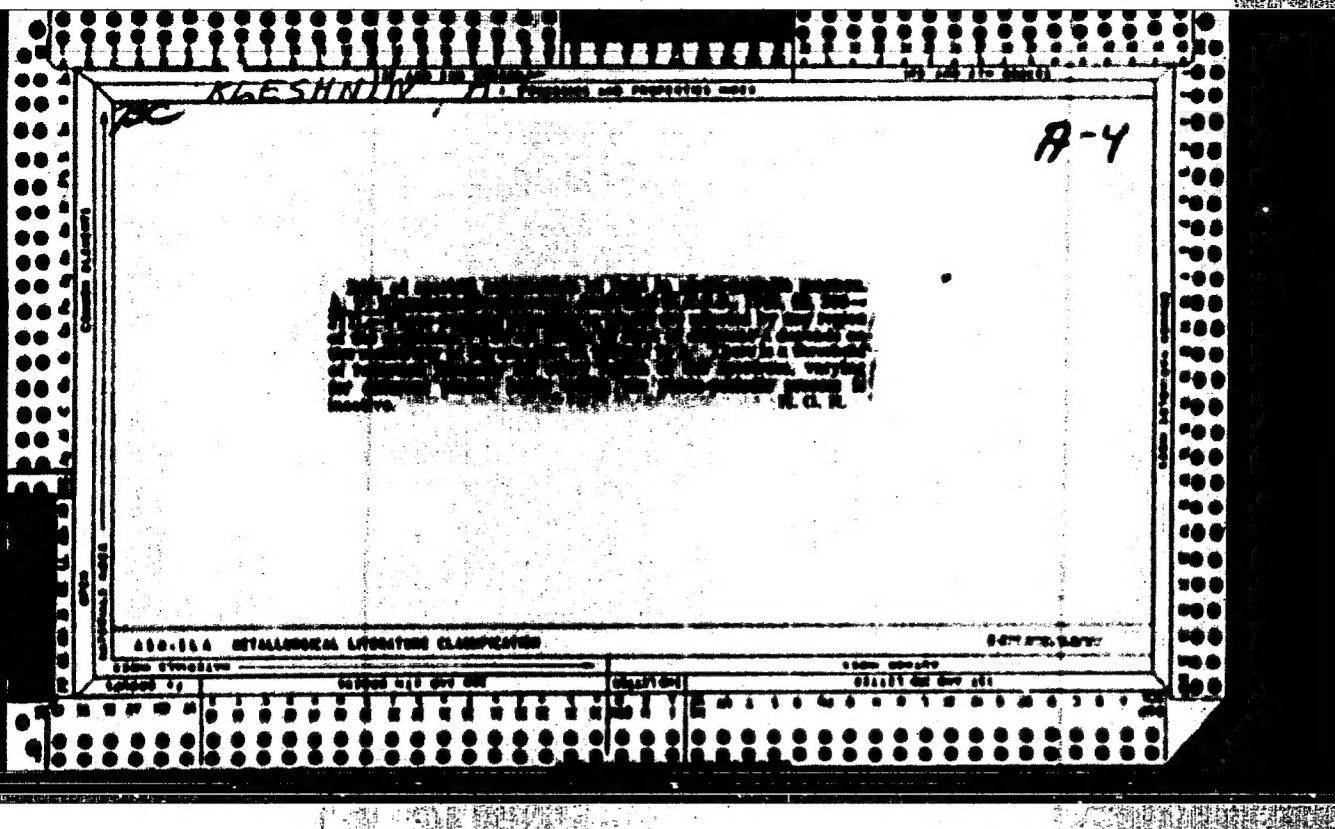
ABSTRACT: In a military ambulatory hospital out of 300 patients treated in 1964, 41% suffered from spinal disorders. As during periods of hostilities the load on a soldier would be increased, the authors assume that the number of soldiers needing medical help would increase, and therefore a study of the means by which they could be sent to military hospitals was made. All cases of tumors, or chronic inflammation of spinal discs should be sent to military hospitals. Chiropractic treatment in field hospitals should be made available. Details of this treatment are discussed.

[JPRS: 36,834]

SUB CODE: 06 / SUBM DATE: none

Card 1/1 *HH*

UDC: 356.33: 616.711-06-08



KLESHNIN, A. F.

"A Contribution to the Study of Heat Resistance of the Leaves of Cotton Grown
on Saline Soils," Dokl. AN SSSR, 47, No.8, 1945

Timiryazev Inst. of Plant Physiol., AS USSR

KLESHNIN, A. F.

"Role of Spectre of Visible Light in Photoperiodic and Formative Processes at Various Developmental Phases," Dokl. AN SSSR, 52, No.9, 1946

KLESHNIN, A. F.

"Contribution to the Question of the Significance of the Spectral
Composition of Light in Growth Processes," Dokl. AN SSSR, 53, No.2, 1946.

KLESHNIN, A. F.

USSR/Medicine - Plants - Development
Medicine - Light, Effects

Jul 47

"Luminescent Tubes as Sources of Radiation for Light Culture of Plants," N. A. Maksimov, Academician; A. F. Kleshnin, Inst Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 2

Tests conducted to determine more exactly effects of artificial light on plant growth, using various types of bulbs. Determined fluorescent lamps to be more economical than filaments lamps, and that they brought about better development of plant. Many plants develop under fluorescent lamps in same manner as in short-day regions. Submitted, 13 May 1947.

PA 60T45

KLESHNIN, A. F.

PA 42/49166

USSR/Medicine - Plant Physiology
Medicine - Lighting, Effects

Mar/Apr 49

"Fluorescent Lamps as a Source of Radiation in
'Photoponics' (Plant Culture Using Light)," A. F.
Kleshnin, Inst of Plant Physiol imeni K. A.
Timiryazev, Acad Sci USSR, 8 pp

"Is AN Nauk SSSR, Ser Fiz" Vol XIII, No 2

Experiments conducted by Inst of Plant Physiol
in 1947 - 48 on relative effectiveness of
fluorescent and incandescent lamps on the growth
of radishes, lettuce, peas, tomatoes, and other
plants showed that fluorescent lamps have real
possibilities as a radiation source in photoponics.
42/49166

KLESNIN, A., F.,

Pa. 15078

USSR/Biology - Botany
Plants

21 Jul 49

"Problem of the Formative Action of Various
Spectral Bands of Physiological Radiation Upon
Plants," A. F. Klesnin, Inst of Plant Physiol
Leningrad K. A. Timiryazev, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 3 -p-529-71

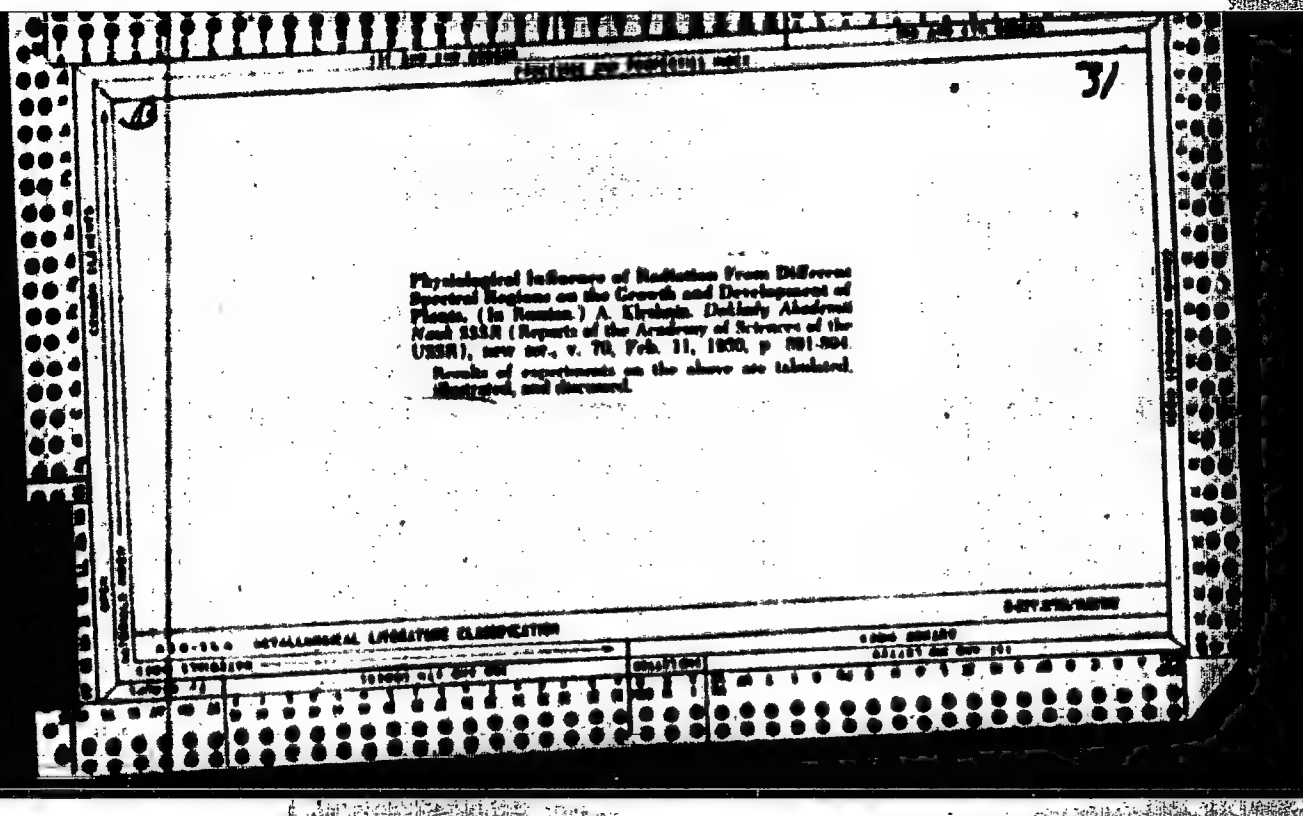
Investigated effect of various spectral bands
on process of formation of plants with edible
roots and bulbs. Test results proved that for-
mation occurs in all spectral regions of physio-
logical radiation if intensity of radiation is

USSR/Biology - Botany (Contd)

15078
21 Jul 49

sufficiently high. Orange-red rays are considered
most active as bulbs develop only under action of
orange-red rays. Includes two tables of test re-
sults. Submitted by Acad N. A. Malyshev 27 May 49.

15078



OTRSPZ No. 45

Kischin, A. V. (K.A. Timiryazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences),
The temperature of the plant leaves under artificial illumination, 1929-32

Akademiya Nauk S.S.S.R., Doklady Vol. 79 No. 6, 1951

1. KLESHNIN, A. F.
2. USSR (600)
4. Botanical Apparatus
7. Growing plants with the aid of fluorescent lamps. *E st, v shkole* No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. KLESHCHIN, A. F.
 2. USSR (600)
 4. Plants, Effect of Light On
 7. Cultivation of plants under artificial light, Priroda 41 No. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

KLESHCHIN, A.F.

Theory and practice of growing plants under artificial light.
Trudy Inst. fisiol. rast. 8 no.1:131-163 '53. (MIRA 6:12)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii
nauk SSSR. (Plants, Effect of light on)

KLESHNIN, A.F.

Problems in measuring radiant energy for physiological
purposes. Trudy Inst. fiziol. rast. 8 no.1:219-228 '53.
(MLRA 6:12)

1. Institut fiziologii rasteniy in. K.A.Timiryazeva Akademii
nauk SSSR. (Solar radiation) (Botany--Physiology)

STROGOV, B.P.; KLESHNIN, A.F.; IVANITSKAYA, Ye.F.; OPARIN, A.I., akademik.

Temperature of cotton plant leaves at various types of soil salt accumulation and under the conditions of various water supply. Dokl.AN SSSR 93 no.1:179-182 N '53. (MIRA 6:10)

1. Akademiya nauk SSSR (for Oparin). 2. Institut fiziologii rasteniy in. K.A.Timiryazeva Akademii nauk SSSR (for Stroganov, Kleshnin and Ivanitskaya). (Cotton)

KLESHNIN, A.F.; KURBANOV, A.L., akademik, otvetstvennyy redaktor; NICHIPOROVICH, A.A., professor, otvetstvennyy redaktor; SANYGIN, Yu.A., redaktor; ZHLENKOVA, Ye.V., tekhnicheskiy redaktor.

[Plants and light; theory and practice of plant growing in artificial light] Rastenie i svet; teoriya i praktika svetkul'tury. Moskva, Izd-vo Akad. nauk SSSR, 1954. 456 p. (MLA 7:12)
(Plants, Effect of light on)

1168-1111 11.1
KLESHNIN, A.F.; STROGOMOV, B.P.; SHUL'GIN, I.A.

New method for determining transpiration. Fisiol.rast. 1 no.2:
188-192 N-D '54. (MIRA 8:10)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akademii
nauk SSSR, Moscow
(Plants--Transpiration)

KURSAHOV, A.L., akademik; KLESHCHIN, A.F., kandidat biologicheskikh nauk.

Marked atoms in the study of plant life. Est. v shkole no.4:12-16
Jl-Ag '54. (MIRA 7:8)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva.
(Botany--Physiology) (Radioactive tracers)

KLESHNIN, Aleksey Fedorovich; SHIK, M.M., redaktor; IMITRIYEVA, R.V., tekhnicheskiiy redaktor

[Role of light in plant life] Rol' sveta v zhizni rastenii. Moskva, Izd-vo "Znanie", 1955. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy. Ser. 3, no. 29)
(Plants, Effect of light on)

KLESHNIN A.F.

Energy balance in plant. A. F. Kleshnin, B. P. Stroganov, and I. A. Shulgin (K. N. Timiryazev Inst. Plant Physiol., Moscow). *Plant. Resonit* 2, 649-67 (1955).
 The energy balance in plants is dealt by transpiration and heat exchange by the leaves, with some 95% of radiant energy being used for these purposes, with but 5% going for photosynthesis and other processes. Transpiration and heat transfer by leaves take approximately equal fractions of the energy supplied by fluorescent lamps. Plants grown on saline medium show higher transpiration and greater absorption of radiant energy. The temp. gradient in leaves rises rapidly in the beginning of illumination, reaches a max. in 2-5 min., then levels to a constant value in 10-15 min. Transpiration is max. in 7-10 min. A negative energy balance exists in the 5-10 min. period. G. M. K.

MD

(2)

KLESHNIN, A.F.

USSR/Physiology - Growth and Development.

B-4

Abs Jour : Referat Zhur - Biol. No 16, 25 Aug 1957, 68970

Author : Kleshein, A.F.

Title : The Significance of the Spectral Composition of Physiological Radiations on Plant Growth and Development.

Orig Pub : Tr. In-ta fiziologii rasteniy, AN SSSR, 1955, 10, 17-27

Abstract : In the Institute of plant physiology, Acad. Sci, USSR, an investigation was conducted of the effect of radiation of luminescent lamps of different colors on cucumbers, turnip, lettuce, cabbage, radish, onion and other plants at varying intensities of physiological radiations (from 4 to 40 thousand $\text{erg/cm}^2 \text{sec}$). The number of leaves, the wet and dry weights, the assimilation surface, and the speed of development were determined. The dependence of organic substance accumulation on the spectral composition of radiation was determined by the course of plant development stage. In vegetative plants, the accumulation

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KLESHNIN, A.F.; OSINOVA, O.P.; TIMOFEEVA, I.V.

**Pigment, protein, and carbohydrate content of lettuce plants under artificial illumination. Trudy Inst.fiziol.rast. 10:60-63 '55.
(MIRA 8:9)**

- 1. Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii nauk SSSR.
(Lettuce) (Plants, Effect of light on)**

KLESHNIN, A.F.

Use of artificial illumination in ornamental plant cultivation. Trudy
Inst.fisiol.rast. 10:122-128 '55. (MIRA 8:9)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii nauk SSSR.
(Plants, Ornamental) (Plants, Effect of light on)

SHAKHOV, Aleksandr Aleksandrovich; RYBKA, Ye.I., doktor biologicheskikh nauk, otvetstvennyy redaktor; KLESHNIN, A.P., redaktor izdatel'stva; SHEVCHENKO, O.N., tekhnicheskii redaktor

[Salt resistance of plants] Solenostoihivost' rastenii. Moskva, Izd-vo Akademii nauk SSSR, 1956. 550 p. (MLRA 9:11)
(Plants, Effect of salt on)

KIESHIN, A.F., kandidat biologicheskikh nauk.

**Equipment for the irradiation of plants, Svetotekhnika 2 no.4:
14-17 JI '56. (MLRA 9:10)**

**1. Institut fiziologii rasteniy Akademii nauk SSSR.
(Plants, Effect of radiation on) (Electric lamps)**

KILSHNIN, A.F.

"Fertilising plants with carbon dioxide". V.A.Chesnokov, A.M.Stepanova.
Reviewed by A.F.Fleshin. Fisiol.rast. 3 no.4: 388 J1-Ag '56. (MIRA 9:9)
(Carbon dioxide) (Fertilisers and manures) (Chesnokov, V.A.)
(Stepanova, A.M.)

Kleshnin, A.F.

USSR/Plant Physiology - Water Regimen.

I.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 82018

Author : Kleshnin, A.F., Shul'gin, I.A.

Inst : - Inst. Plant Physiology im K.A. Timiryazev AS USSR

Title : The Intensity of Transpiration Under artificial Light.

Orig Pub : Fiziol. rasteniy, 1957, 4, No 6, 548-553

Abstract : Plant transpiration under strong (35000-1.000.000 erg/cm sec) illumination by incandescent lamps attained its maximum during the first 15 min and then diminished and became stable. It was strongest in the *Solanum bycopersicum*, *Malus communis*, *Acer platanoides*. It was weaker for the *Cucumis sativus*. It was smallest for *Calla ethiopica*, *Ilex pyramidalis*. The transpiration of 20 of 23 studied species is rigorously proportional to the illumination. The maximum transpiration intensity (547 g/m²-hour) is noted in the *Populus tremula* in a hot-house and at 19-26° and under integral lamp radiation of

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USSR/Plant Physiology - Water Regimen

Abs Jour : Ref Zhur - Biol., No 18, 1958, 82018

1.000.000 erg/cm². sec. -- L.I. Krasovskiy.

Card 2/2

KLESHNIN, A.F., SHUL'GIN, I.A.

Leaf temperature of plants in artificial light. *Biofizika* 3 no. 4:438-446
'58 (MIRA 11:8)

1. Institut fiziologii rasteniy AN SSSR, Moskva.
(PLANTS, EFFECT OF LIGHT ON)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Photoelectric determination of the optical properties of plant leaves.
Fisiol.rast. 5 no.5:473-476 8-0 '58. (MIRA 11:11)

1. Institut fiziologii rasteniy imeni K.A. Timiryazeva AN SSSR, Moskva
i Kafedra darvinizma Moskovskogo gosudarstvennogo universiteta, Moskva.
(Leaves--Optical properties) (Photoelectric measurements)

KLESHNIN, A.F.; SHUL'GIN, I.A.; BOKAVAYA, M.M.

Plant physiology: Heat capacity and bound water of plants. Dokl. AN
SSSR 122 no.5:940-943 0 '58. (MIRA 11:11)

1. Institut fiziologii rasteniy imeni K.A. Timirязeva AN SSSR.
Predstavleno akademikom A.L. Kursanovym.
(Heat capacity) (Plants--Chemical analysis) (Water)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Role of anthocyanins in the absorption of radiation energy by
plant leaves. Nauch.dokl.vys.shkoly; biol.nauki no.2:166-174
'59. (MIRA 12:6)

1. Rekomendovana kafedroy darvinizma gosudarstvennogo universiteta
im. M.V.Lomonosova.
(Anthocyanin) (Solar radiation) (Leaves)

~~KLESHCHIN, A. F.~~ SHUL'GIN, I.A.

Energy balance of plant leaves in artificial light. Vest.Mosk.un.
Ser.biol., pochv., geol., geog. 14 no.1:23-30 '59.
(Plants, Effect of light on) (MIRA 12:9)

17(1)

AUTHORS:

Kleshnin, A. F., Shul'gin, I. A.

SOV/20-125-5-56/61

TITLE:

On the Optical Properties of Plant Leaves (Ob opticheskikh svoystvakh list'yev rasteniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 5, pp 1158-1161 (USSR)

ABSTRACT:

The main part of the radiation energy which reaches the leaves is absorbed by them. It is used for all physiological processes and the processes of growth and development related to them. Although since Sachs (Ref 1, 1860) many papers have been published on the topic mentioned in the title, the number of modern papers is very low (Refs 5-9). Therefore it is necessary to investigate the topic mentioned systematically. The rules governing the distribution of the radiation energy absorption within the physiological range of the spectrum have to be determined for most of the plant species under natural conditions. For this purpose the authors investigated approximately 80 species from the central zone of the European part of the USSR according to the earlier published method (Ref 1). These species were planted in fields: sunflower (*Helianthus annuus*), potato (*Solanum tuberosum*), et al., altogether 6 species; vegetables: tomato (*Solanum lycopersicum*), pea (*Pisum sativum*),

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On the Optical Properties of Plant Leaves

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cucumber (*Cucumis sativus*), black radish (*Cochlearia armoracia*) et al., altogether 10 species; vegetables with a high water content in the leaves: onion (*Allium cepa*), lettuce (*Lactuca sativa*), common sorrel (*Rumex domesticus*), et al. - 5 species; ornamental plants: *Perilla nankinensis*, *Phlox paniculata*, peony (*Paeonia officinalis*), *Cineraria maritima*, et al. - 10 species; wild herbaceous plants: *Rubus saxatilis*, violet (*Viola tricolor*), strawberry (*Fragaria vesca*) et al. - 10 species; trees: white poplar (*Populus alba*), birch (*Betula verrucosa*), lime-tree (*Tilia vulgaris*), hazel tree (*Corylus avellana*), common (British) oak (*Quercus robur*) et al. - 15 species; aquatic plants - hygro- and hydrophytes: *Caltha palustris*, *Najas*, *Thypha latifolia*, *Potamogeton pectinatus*, et al. - 15 species, which differ from one another by the chlorophyll content in the leaves and have different stands. It was found that the reflection, permeability, and absorption of radiation energy in the individual spectral ranges are rather similar in the major part of these plant species in spite of their different systematic and ecological classification and different stands. This was confirmed by the spectral curves (Fig 1). From these results the conclusion may be drawn that an optical system developed in the course of evolution of the plants: leave - plastides - pigments which got

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On the Optical Properties of Plant Leaves

SOV/20-125-5-56/61

accustomed to the optimum absorption of radiation energy within a rather narrow range, i. e. irrespective of the species characteristics of the plants. There are 3 figures and 11 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov), Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR (Institute of Plant Physiology imeni K. A. Timiryazev of the Academy of Sciences, USSR)

PRESENTED: January 10, 1959, by A. L. Kursanov, Academician

SUBMITTED: January 9, 1959

Card 3/3

507/20-125-6-55/61

17(1)
AUTHORS:

Shul'gin, I. A., Kleshnin, A. F.

TITLE:

On the Correlation Between the Optical Properties and the Chlorophyll Content in Plant Leaves (O korrelyatsii mezhdru opticheskimi svoystvami i soderzhaniyem khlorofilla v list'yakh rasteniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6, pp 1371-1373 (USSR)

ABSTRACT:

The pigment content varies considerably in the plant leaves (Ref 1). However, there are no data on the effects of different chlorophyll contents on the optical properties of leaves, in particular on the absorption of radiation energy. This effect was to be determined in the investigation under review. For this purpose, plants of the middle zone of the European USSR from natural growth conditions were used, both light-loving and shadow-loving plants being employed: herbs, woody plants, ornamentals, crops, and others, a total of 80 species. The optical properties were determined by the method indicated in reference 2. Figures 1-3 show the results. From them it may be concluded that in most of the above-mentioned plants (mainly

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SOV/20-125-6-55/61

On the Correlation Between the Optical Properties and the Chlorophyll Content
in Plant Leaves

mesophytes) the optical properties - transmission, reflexion,
and absorption - are independent of the chlorophyll content.
Chlorophyll is mostly present in excess quantities.
There are 3 figures and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov) Institut fizio-
logii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR
(Institute of Plant Physiology imeni K. A. Timiryazev of the
Academy of Sciences of the USSR)

PRESENTED: January 10, 1959, by A. L. Kursanov, Academician

SUBMITTED: January 9, 1959

Card 2/2

KLESHNIN, A. F., Doc Biol Sci -- (diss) "Physiological bases for the light cultivation of plants." Leningrad, 1960. 32 pp with graphs; (Academy of Sciences USSR, Botannical Inst in V. L. Komarov); 300 copies; free; list of author's work at end of text (36 entries); (KL, 22-60, 134)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Relation between optical properties and structural characters in
plant leaves. Nauch. dokl. vys. shkoly; biol. nauki no.1:132-135
'60. (MIRA 13:2)

1. Rekomendovana laboratoriyey biologii razvitiya rasteniy Moskov-
skogo gosudarstvennogo universiteta im. M.V. Lomonosova i Institutom
fiziologii rasteniy AN SSSR.
(Leaves--Optical properties)

SHUL'GIN, I.A.; KLESHNIN, A.F.; HERBOLOVA, M.I.; PODOL'NYI, V.Z.

Studying optical properties of leaves in woody plants with
the SF-4 spectrophotometer. Fisiol.rast. 7 no.3:300-308
'60. (MIRA 13:6)

I. K.A. Timiryazev Institute of Plant Physiology, U.S.S.R.
Academy of Sciences, Moscow.
(Leaves--Optical properties) (Spectrophotometry)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Optical properties of plant leaves containing anthocyanins.
Biol. MOIP. Otd. biol. 65 no. 4:77-83 J1-Ag '60. (MIRA 13:10)
(LEAVES—OPTICAL PROPERTIES) (ANTHOCYANIN)

SHUL'GIN, I.A.; KHAZANOV, V.S.; KLESHNIN, A.P.

Nature of the reflection of radiant energy as related to the structure of the leaf.. Dokl.AN SSSR 134 no.2:471-474 8 '60.

(MIRA 13:9)

1. Institut fiziologii rasteniy im.K.A.Timiryazeva AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut. Predstavleno akad. A.L.Kursanovym.
(Leaves--Optical properties)

SHUL'GIN, I.A.; KLESHNIN, A.F.; PODOL'NIY, V.Z.

Optical properties of plant leaves in the ultraviolet region of radiation. Fisiol. rast. 7 no.2:141-144 '60. (MIRA 14:5)

1. Institut fiziologii rasteniy imeni K. A. Timiryazeva Akademii nauk SSSR, Moskva i Biologicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.
(Leaves—Optical properties)
(Ultraviolet rays)

KLESHNIN, A.P.; SHUL'GIN, I.A.; VERBOLOVA, M.I.

Optical properties of plant leaves. Bot. zhur. 45 no.4:492-506
Ap '60. (MIRA 14:5)

1. Institut fiziologii rasteniy im. K. A. Timiryazeva AN SSSR i
laboratoriya biologii razvitiya rasteniy Moskovskogo gosudarst-
vennogo universiteta.

(Leaves—Optical properties)

SHUL'GIN, I.N.; KHAZANOV, V.S.; KLESHNIN, A.F.; RZHANOVA, T.B.

Scattering of radiant energy by plant leaves. Biofizika 6 no.6:734-739 '61.
(MIRA 15:1)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva, Moskva
i Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut.
(PLANT PHYSIOLOGY) (RADIATION SCATTERING)

KLESHNIN, A.F. [Kliashnin, A.F.]: ZHOLOBENKO, L.A. [Zhdarenko, L.A.]

Plantid apparatus of a car test leaves in artificial light.

Vosto AN BSR. Ser. bibl. nav. n. 4157-14 '62.

(MIRA 17:6)

SHUL'GIN, Igor' Aleksandrovich; KUPERMAN, F.M., prof., otv. red.;
KLESHNIN, A.F., prof., otv. red.; DANIL'CHENKO, O.P.,
red.; GEORGIJEVA, G.I., tekhn. red.

[Morphological adaptations of plants to light; optical
properties of leaves. A lecture from the course "Biology
of plant development"] Morfofiziologicheskie prispособleniia
rastenii k svetu; opticheskie svoistva list'ev. Lektsiia iz
kursa "Biologiya razvitiia rastenii." Moskva, Izd-vo Mosk.
univ. 1963. 72 p. (MIRA 16:9)

(Leaves—Optical properties)

ROZHDESTVENSKIY, V.I.; CHUCHKIN, V.G.; KLESHNIN, A.P.

Automatic maintenance of a stationary CO₂ concentration in
photosynthetic chambers. Fiziol.rast. 12 no.1:178-181 Ja-F
'65. (MIRA 18:3)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva.

KLESHNIN, V., inzh.; PEREDIEL'SKIY, V. [Perediol's'kiy, V.], inzh.

Thermic piercing of holes. Inan. ta pratsia no.4:12 Ap '59.
(Boring) (MIRA 12:10)

KLESHNIN, V., inzh.; PEREDIEL'SKIY, V. [Perediol'skiy, V.], inzh.

The use of mine gases. Znan. ta pratsia no.6:11 Je '59.
(MIRA 12:11)

(Mine gases)

FOMKIN, N.Ye., inzh.; KLESHOV, B.A.

Laying an asbestos-cement pipeline with a new type of butt joint.
Vod. i san. tekhn. no.1:31 Ja '63. (MIRA 16:2)

(Pipe, Asbestos-cement)

(Pipe joints)

KLESHOV, B.A., inzh.

Delivery conduits from asbestos-cement pipes with new joints.
Vod. i san. tekhn. no.11:7-9 N '65. (MIRA 18:12)

BABIKYAN, A.Sh., kand. tekhn. nauk; CHELYCHEV, L.A., inzh.;
KLESHOV, B.A., inzh.

Filtration characteristics of porous concrete drain pipes.
Tranzp. stroi. 15 no.11:45-46 N 165. (MIRA 26:11)

KLESKEN, B.

"Measurement of output with a electro-dynamic wattmeter." p. 77.

TECHNICKA PRACA. (Rada vedeckych technickych spolocnosti pri Slovenskej akademii vied). Bratislava, Czechoslovakia, Vol. 7, No. 2, 1955.

Monthly list of East European Accessions (KEAI), LC, Vol. 8, No. 6,
August 1959.
Unclass.

KLESKEN, B.

Measuring idle capacity. p. 176

TECHNICKA PRAGA. Czechoslovakia, Vol. 7, No.4, 1955

Monthly List of East European Accessions (KEAI), IC, Vol. 8, No. 9, September 1959
Uncl.

KLESKEN, B.

Simple low-frequency generator. p. 371

TECHNICKA PRACA. Czechoslovakia, Vol. 7, No. 8, Aug. 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

KRZHIIVSKIY, B. [Krivsky, B.]; KLESKEN, I. [Klesken, J.]; NEYMATYER, V.
[Neumajer, V.]; GRADETSKIY, Z. [Hradecky, Z.]; DECTYAREV, P.V.
[translator]; PARSHINA, Ye.A. [translator]; PETRENKO, V.Ya.,
general-leutenant, red.; ARTEMOV, A.P., red.; MUKHANOVA, M.D.,
tekh. red.

[Night fighting] Nochnoi boi. Pod red. Petrenko V.IA. Moskva,
Voenizdat, 1963. 170 p. Abridged translation from the Czech.
(MIRA 16:2)

(Night fighting (Military science))

KLESKO, O.B. [Kleshko, O.B.]

Automatic regulation of band thickness in the reversible
mills for cold lamination. *Analele metalurgie* 16 no.4:166-
177 O-D '62.

ACC NR: AP6035092

SOURCE CODE: CZ/0086/66/000/019/0024/0026

AUTHOR: Klcs1, E.

ORG: none

TITLE: The secret program of the "Kosmos" satellites

SOURCE: Letectvi-kosmonautika, no. 19, 1966, 24-26

TOPIC TAGS: manned space flight, unmanned space flight, space program, space research facility, orbit space flight, spacecraft, artificial satellite, scientific satellite, satellite trajectory, space hazard/ Kosmos satellite, Molniya satellite, Zond probe

ABSTRACT: The author analyzes the "Kosmos" satellite program, based on "meager" information from the USSR, and on Western sources. Certain similarities of the apogees of the various Kosmos satellites lead him to believe that there are four different types, and that the Molniya satellite and the unmanned Voskhod belong to the same program. He quotes Western observers as dividing the Kosmos series into two groups: 1) those launched at an angle of 49° and 56° (estimated to be 1.5 m long and 1 m in diameter and weighing 400 to 800 kg) and believed to be

Card 1/2

ACC NR: AP6035092

launched from Kapustin yar cosmodrome; 2) those launched at 51° and 65°. Most of these returned after 8 days, some landed outside of the USSR; their radio signal was similar to those of spaceships before Gagarin's flight and they are presumed to have been launched from the Baykonur, Karsakpay and Turatam cosmodromes. The author credits Dr. F. J. Krieger (Rand Corporation) with exceptional knowledge of the program, and he detects indirect proof that the Kosmos satellites are, indeed, unmanned Vostok-type spaceships in a quoted report (August 1965) from Moscow, stating that the Kosmos series are significant not only for scientific purposes but also for manned spaceflights, and that they helped to solve problems of reentry, radiation, and nuclear blasts in space. He agrees with Dr. Krieger in that almost all space satellites—American or Soviet—are para-military vehicles. The author also deals with speculations surrounding Kosmos 50 (which shattered into 97 pieces) and Kosmos 57 (which shattered into 200 pieces). According to one version it was the result of an unsuccessful docking attempt, while the other version states that the satellites were hit by an antisatellite weapon, and the third version, that they were destroyed for fear that they would land on non-Soviet territory. He speculates that these satellites may serve antisatellite defense research, and believes that the Zond program ties in with the Kosmos series. Orig. art. has: 3 figures and 4 tables.

[KS]

SUB CODE: 22/SUBM DATE: none/

Card 2/2

2(10); 13(1)

PHASE I BOOK EXPLOITATION

CZECH/2468

Klesl, Emil

Raketové zbraně (Rocket Weapons) Praha, Naše vojsko, 1958. 273 p. (Series: Knižnice moderní vojenské techniky, sv. 1) 8,000 copies printed.

Resp. Eds.: Arnost Burget, Captain, and Karel Zelený.

PURPOSE: The book is intended for the general reader.

COVERAGE: The book surveys the history of rocket development and describes the main types of rockets of the past and present. Specifications and diagrams or photographs are given. Some of the detail on Soviet-made rockets may be of interest. No personalities are mentioned. There 40 references: 11 Czech, 14 Soviet, 8 German, and 7 English.

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K.Ye. Tsiolkovskiy

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IS/Jb
12-2-59

KLESL, Emil

Is an European artificial earth satellite in preparation?
Letecky obzor 5 no.11:353-355 '61.

Z/040/62/000/002/001/002
D006/D102

AUTHOR: Klesl, Emil

TITLE: The second goal of astronautics - the moon

PERIODICAL: Letecky obzor, no. 2, 1962, 45-46

TEXT: This is the first part of an article dealing with the American and Soviet attempts to reach the moon. The successful launchings of the Soviet Lunik I, II, and III, as compared to the only successful US deep-space probe Pioneer IV, show the superiority of the Soviet rocket technology over that of the US. Also, the hard landing on the moon of Lunik II, and the photographing of the far side of the moon by Lunik III, indicate the high accuracy with which the Soviet lunar vehicles were put into their trajectories. The Hungarian expert Lovas of the Academy of Sciences in Budapest is the personality mentioned. There are 3 figures.

Card 1/1



Z/C40/62/000/003/001/003
D006/D102

AUTHOR: Klesl, Emil

TITLE: The second goal of astronautics - the moon

PERIODICAL: Kosmicheskii obzor, no. 3, 1962, 77-79

TEXT: This is the second and last part of an article dealing with the American and Soviet attempts to reach the moon. The American lunar landing program is stated and compared with actual Soviet accomplishments. Although Soviet space plans are not published, some Soviet authors assume that an "elastic" landing on the moon of a Soviet spacecraft can be expected sometime in 1962. The Soviet scientist N. Varvarov stated that for manned lunar flights it would be convenient, and possibly even inevitable, to use spacecraft with nuclear engines and/or orbiting refueling stations. Professor Sergeyev states that establishment of systems of communications, navigational and meteorological earth satellites can be expected in the near future. The Soviet expert G. Petrovich declared that it will be quite feasible to increase the current weight of Soviet spacecraft ten times within ten years. In the author's opinion, Soviet scientists are working on the solution of nuclear rocket engines, and also on the technical and scientific

Card 1/2

Z/040/62/000/003/001/003
D006/D102

The second goal of astronautics ...

problems of placing into orbit a larger number of "cargo" rockets. He concludes that launching of lunar spacecraft with automatic robots, and possibly also with some living organisms, will precede the manned lunar landing. There is 1 figure.

Card 2/2

KIESL, Emil

Moon, the second target of oceanautics. Latecky obsor 6 no.3:77-78
'62.

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SUB CODE: AS

SUBMITTED: 0000064

NO REF SOV: 023

OTHER: 026

Card 5/5

KLESMAN, V. O.

USSR/Chemistry - Xanthogenates

Jun 49

"The Chemistry of Viscose Xanthogenates: V, Thioanhydrides of Xanthogenic Acids and Their Conversion," S. N. Danilov, N. M. Grad, V. O. Klesmen, Lab for Chem Processing of Cellulose, Leningrad Technol Inst imeni Lensovet, 8 1/4 pp

"Zhur Prik Khim" Vol XXII, No 6

Shows that chemical properties of monoxanthogensulfides or the thioanhydrides of xanthogenic acids are similar to those of xanthogendisulfides or dixanthogenides. In a water solution, an alkali on thioanhydrides of cellulosexanthogenic acid yields cellulose xanthogenate with a carbon oxysulfide by-product, and using an aqueous ammonia solution, cellulose ammonium xanthogenanilide with a hydrogen sulfide by-product. Thioanhydrides cannot exist in viscose solutions with a general alkalinity of about 7%.

62/49T22

ALESXANDY, N. U.

(2)

Relaxation properties of crystalline fibers obtained by polymerization. N. V. Mikhailov, M. V. Nychayev, and V. O. Klesman. *Khim. i Fiz. Khim. Tsvetn. i D. S. Khim.* 1932, 205-73. — It is shown that the greater is the deformation of polyamide fibers (I) the lower is their capability to restore their original shape. The speed of the restoration decreases when the deformation time increases. In an example I was stretched to 100%; after prompt release the deformation dropped immediately to 20%. However, when the stretching lasted 180 hrs., the whole 100% deformation remained permanently. When I was stretched to 200% and promptly released the deformation dropped immediately to 20%. When stretching lasted 310 hrs., the whole 200% deformation remained permanently. This behavior is analogous to "mech. vitrification" of certain rubbers or to "mech. vitrification" of amorphous cellulose fibers subjected to stretching.

M. J. Hendel

KLESMAN, V. O.
Jan 10, 1954
General and
Physical Chemistry

Two structural modifications of synthetic polyamides in the solid state. N. V. Mikhailov and V. O. Klesman. Doklady Akad. Nauk S.S.S.R. 91, 99-102 (1954). Depending on the environmental conditions, synthetic polyamides can be obtained in either cryst. or glassy-amorphous states. These are transformed into each other reversibly. The cryst. form is imperfect and relatively unstable. The polyamide prep. from caprolactam was examd. Soln. of polycaprolactam in HCO₂H on evapn. gave an opaque product, also obtained on slow cooling of molten material. Rapid cooling of a melt gave transparent or translucent form. X-ray diffraction of the former gave diffuse rings, that of the latter sharp rings. The interplanar distances were 8.39 Å., and 4.98, 4.57, 4.31, and 3.78 Å., resp., in the 2 groups. Thus the rapidly supercooled specimens are amorphous-glassy. Thermographic analysis made by slow cooling and heating of the specimens showed that the formation of the modification is a matter of kinetics only. The cryst. temp. is some 25° below "melting" temp. with several degree interval of melting range. A dry specimen prep. by slow cooling of a melt showed on slow reheating only a single endothermic effect of melting at 205-16°; the rapidly cooled specimen showed endothermic effects at 120-88° and at 116-63°. The 1st effect (120-88°) is ascribed to vitrification. The heat of fusion of the cryst. form is 13.4 cal./g. (1.4 kcal./mole), while that of the glassy modification is 9.4 cal./g. (1.0 kcal./mole). O. M. Kozlovskii

3
(2)
chem

7-27-54

All-Union Sci. Res. Inst. Synthetic Fibers

MIKHAYLOV, N.V.; KLESMAN, V.O.

~~XXXXXXXXXXXXXXXXXXXX~~
Study of the structure of synthetic polyamides. Part 4. Radiographic data on structural transformations. Koll.shur. 16 no.3:191-195 '54. (MLBA 7:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.
(Textile fibers, Synthetic) (Radiography)

MIKHAYLOV, N.V.; KLESMAN, V.O.

**Investigation of the structure of synthetic polyamides. Part 5.
Thermographic data on structural conversions in synthetic poly-
amides. Koll.shur. 16 no.4:272-279 J1-Ag '54. (MLA 7:7)**

**1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna.**

(Thermal analysis) (Textile fibers, Synthetic) (Amides)

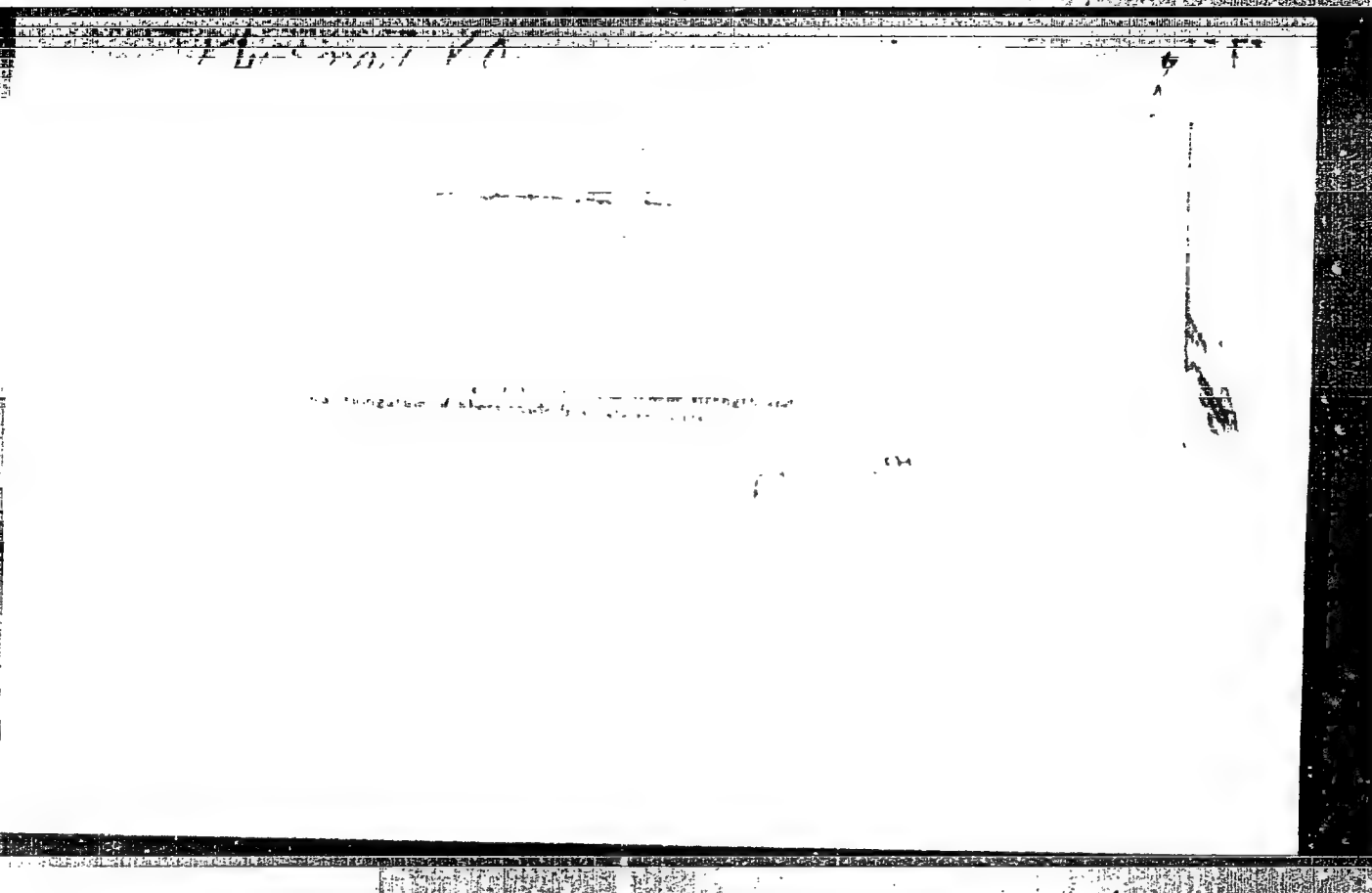
KLESMAN, V.O.

MIKHAYLOV, N.V.; KLESMAN, V.O.

Phase conditions in polyscrylonitrile fibers and structural
changes during the orientation of these fibers. Soob.o nauch.
rab.chl.VKHO no.3:43-45 '55 (MIRA 10:10)
(Acrylonitrile)

"APPROVED FOR RELEASE: 06/19/2000

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KLESMENT, I.; LAGEDA, E.

Identification of phenols in gas chromatography fractions by
catalytic dehydrogenation. Izv. AN Est. SSR. Ser.fiz.-mat.1
tekh.nauk 14 no.2:273-280 '65. (MIRA 19:1)

1. Institut khimii AN Estonakoy SSR. Submitted April 30, 1964.

SALUSTE, S.; KLESMENT, I.; EYZEN, O. [Eisen, O.]

Composition of phenols of tunnel kilns. Report No. 2. Izv.
AN Est. SSR. Ser. fiz.-mat. i tekhn. nauk 14 no. 4:596-604
'65 (MIRA 19:2)

Catalytic properties of palladium and platinum under con-
ditions of microreactor gas chromatographic analysis. Ibid.:
605-613.

1. Institut khimii AN Estonskoy SSR. Submitted March 31,
1965.

KLEMENT, I.; LAGODA, E.; EYZEL, O. [Eisen, O.]

Thin-layer chromatography of phenols. Izv. AN Est. SSR. Ser.fiz.-mat.
1 tekhnauk 14 no.2:266-272 '65. (MIRA 19:1)

1. Institut khimii AN Estonskoy SSR. Submitted August 15, 1964.

KLESMENT, I., kand.tekhn.nauk; LAQEDA, E.

Separation of phenols by distributive chromatography. Izv. AN Est.
SSR. Ser. fiz.-mat. i tekhn.nauk no.4:290-296 '64.

(MIRA 18:4)

1. Institut khimii AN Estonskoy SSR.

KLESMET, I., kand.tekhn.nauk

Study of the structure of ketones by hydrogenation and gas chromatography. Izv. AN Est. SSR, Ser. fiz.-mat. i tekhn.nauk no.4:305-311 '64. (MIRA 18:4)

1. Institut khimii AN Estonskoy SSR.

KLESMENT, I. [Klesment, I.]; KHALLIK, E. [Hallik, E.]

Comparative characteristics of the semicoking tars of oil shales. Khim.
i tekhn.gor.slav. i prod. ikh perer. no.12:169-180 '63. (MIRA 17:2)

SALUSTE, S.; KLIMENT, I.; EYZEN, O. [Eisen, O.]

Composition of phenols of tunnel ovens. Izv. AN Est. SSR. Ser.
fiz.-mat. i tekhn. nauk 11 no.1:140-146 '65. (MIRA 18:11)

1. Institut khimii AN Estonskoy SSR.

KIESMENT, I.; RYZEN, O. [Eisen, O.]

Study of the structure of phenols by their hydroxylation to
aromatic hydrocarbons. Izv. AN Est, SSR, Ser. fiz.-mat. i tekhn.
nauk 14 no.1:147-151 1965. (MIRA 18:11)

1. Institut khimii AN Estonskoy SSR.

KLESMENT, I. R., Cand of Tech Sci -- (diss) "Extraction of Aromatic Hydrocarbons from Light Fractions of Shale Tars," Tallin, 1959, 26 pp (Institute of Chemistry, Acad of Sci Estonian SSR) (KL, 5-60, 126)

5(3)

SOV/23-59-2-4/8

AUTHOR: Klement, I. R.

TITLE: Refining Aromatic Shale Benzine by Sulfuric Acid
Over an Alumosilicate Catalyzer

PERIODICAL: Izvestiya Akademii Estonskoy SSR, Seriya tekhnicheskikh i
fiziko-matematicheskikh nauk, 1959, Nr 2, pp 92-102 (USSR)

ABSTRACT: Aromatic Shale Benzine contains, apart from aromatic
hydrocarbons, also paraffin, olefins and sulphur
compounds. When separated, sulphur compounds are
polymerized with olefins at a maximum of 20°C.
There are 11 tables, 4 graphs and 11 references,
10 of which are Soviet and 1 German.

Card 1/1